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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,723	11/09/2001	Hajime Tabata	505-914P	5858
2292	7590	08/25/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			CHAWAN, VIJAY B	
PO BOX 747			ART UNIT	PAPER NUMBER
FALLS CHURCH, VA 22040-0747			2654	

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/986,723	TABATA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Vijay B. Chawan	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 16 December 2004.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 and 25-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-4, 9-12, 25, 26 and 28-31 is/are rejected.
- 7) Claim(s) 5-8, 13-16, 17-20 and 27 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 16 December 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____.   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____.                                   |

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Claims 5-8, 13-16, 18, 19, 20, and 27 are objected to as being dependent upon a rejected or objected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
2. The following is a statement of reasons for the indication of allowable subject matter: the reasons were presented to the applicant in the office action mailed to the applicant on 8/16/2004.

### ***Claim Objections***

3. Claim 17 is objected to because of the following informalities: the phrase "an amplifier to amplifying..." is awkward as recited. Does the applicant mean "an amplifier to amplify..."?. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-2, 9-10, and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen et al., (5,526,419) in view of Harada et al., (6,272,466).

As per claim 1, Allen et al., teach a speech communication apparatus including a speech communication microphone, a speaker and a communication unit for amplifying an output signal from said speech communication microphone, said speech communication microphone and said speaker being fixedly disposed in the vicinity of a mouth and an ear of an individual (Fig.1, item 13m, Fig.4, Fig.4, item 46, Fig.7, item 59, Fig.9, item 25', Col.2, lines 48-50), respectively, said communication unit comprising:

amplifying means for amplifying an input signal and outputting said input signal so amplified (Fig.7, item 59); and,

control means for controlling the gain of said amplifying means in response to an excessive input signal (Fig.8, items 44-49).

However, Allen et al., do not specifically teach said control means including a VOX detection circuit, a sneezing circuit, and an OR circuit, the OR circuit for outputting a theoretical sum of an output signal from the VOX detection circuit and an output signal from the sneezing detection circuit for controlling the gain of said amplifying means such that a reproduced sound of said excessive input signal is reduced to a predetermined level only for a predetermined period of time when said excessive input signal is detected. Harada et al., do teach said control means including a VOX detection circuit, a sneezing circuit, and an OR circuit, the OR circuit for outputting a theoretical sum of an output signal from the VOX detection circuit and an output signal from the sneezing detection circuit for controlling the gain of said amplifying means such that a reproduced

sound of said excessive input signal is reduced to a predetermined level only for a predetermined period of time when said excessive input signal is detected (Col.24, lines 57-65).

Therefore it would have been obvious to one with ordinary skill in the art at the time of invention to incorporate the sneeze detection circuit of Harada et al., in the apparatus of Allen et al., because this would effectively classify and detect voice data accurately.

As per claim 2, Allen et al., in view of Harada et al., teach the speech communication apparatus according to claim 1, wherein said control means controls the gain of said amplifying means by detecting an input signal corresponding to sneeze or cough (Allen et al., Fig.8, items 44-49, Harada et al., Col.24, lines 57-65).

As per claim 25, Allen et al., the speech communication apparatus according to claim 1, and further including operation means for varying said predetermined level of said excessive input signal (Allen et al., Fig.8, items 44-49).

As per claim 26, Allen et al., the speech communication apparatus according to claim 9, and further including operation means for varying said predetermined level of said excessive input signal (Allen et al., Fig.8, items 44-49).

As per claim 9, Allen et al., teach a speech communication apparatus including a speech communication microphone, a speaker and a communication unit for amplifying an output signal from said speech communication microphone, said speech communication microphone and said speaker are fixedly disposed in the vicinity of a

mouth and an ear of an individual (Fig.1, item 13m, Fig.4, Fig.4, item 46, Fig.7, item 59, Fig.9, item 25', Col.2, lines 48-50), respectively, communication unit comprising:

amplifying means for amplifying an input signal and outputting said input signal so amplified(Fig.7, item 59); and,

control means for controlling the gain of said amplifying means in response to an excessive input signal (Fig.8, items 44-49).

However, Allen et al., do not specifically teach said control means including a VOX detection circuit, a sneezing circuit, and an OR circuit, the OR circuit for outputting a theoretical sum of an output signal from the VOX detection circuit and an output signal from the sneezing detection circuit for controlling the gain of said amplifying means such that a reproduced sound of said excessive input signal is reduced to a predetermined level only for a predetermined period of time when said excessive input signal is detected. Harada et al., do teach said control means including a VOX detection circuit, a sneezing circuit, and an OR circuit, the OR circuit for outputting a theoretical sum of an output signal from the VOX detection circuit and an output signal from the sneezing detection circuit for controlling the gain of said amplifying means such that a reproduced sound of said excessive input signal is reduced to a predetermined level only for a predetermined period of time when said excessive input signal is detected (Col.24, lines 57-65).

As per claim 10, Allen et al., in view of Harada et al., teach the speech communication apparatus according to claim 9, wherein said control means controls the

gain of said amplifying means by detecting an input signal corresponding to sneeze or cough (Allen et al., Fig.8, items 44-49, Harada et al., Col.24, lines 57-65).

6. Claims 3, 4, 11, 12, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen et al., (5,526,419) in view of Harada et al., (6,272,466), and further in view of Yamaguchi et al., (5,751,822).

As per claim 3, Allen et al., in view of Harada et al., teach the speech communication apparatus according to claim 1. Allen et al., in view of Harada et al., do not specifically teach including operation means for varying said predetermined period of time. Yamaguchi et al., do teach including operation means for varying said predetermined period of time , which reads on suppressing time changing with response to speech (Col.5, lines 5-19).

Therefore it would have been obvious to one with ordinary skill in the art at the time of invention, to incorporate the method of Yamaguchi in the apparatus of Allen et al., in view of Harada et al., because this would provide effective maintenance of the peak signal output level against a decline for a specified holding time.

As per claim 4, Allen et al., in view of Harada et al., teach the speech communication apparatus according to claim 2. Allen et al., in view of Harada et al., do not specifically teach including operation means for varying said predetermined period of time. Yamaguchi et al., do teach including operation means for varying said predetermined period of time , which reads on suppressing time changing with response to speech (Col.5, lines 5-19).

Therefore it would have been obvious to one with ordinary skill in the art at the time of invention, to incorporate the method of Yamaguchi in the apparatus of Allen et al., in view of Harada et al., because this would provide effective maintenance of the peak signal output level against a decline for a specified holding time.

As per claim 11, Allen et al., in view of Harada et al., teach the speech communication apparatus according to claim 9. Allen et al., in view of Harada et al., do not specifically teach including operation means for varying said predetermined period of time. Yamaguchi et al., do teach including operation means for varying said predetermined period of time , which reads on suppressing time changing with response to speech (Col.5, lines 5-19).

Therefore it would have been obvious to one with ordinary skill in the art at the time of invention, to incorporate the method of Yamaguchi in the apparatus of Allen et al., in view of Harada et al., because this would provide effective maintenance of the peak signal output level against a decline for a specified holding time.

As per claim 12, Allen et al., in view of Harada et al., teach the speech communication apparatus according to claim 10. Allen et al., in view of Harada et al., do not specifically teach including operation means for varying said predetermined period of time. Yamaguchi et al., do teach including operation means for varying said predetermined period of time , which reads on suppressing time changing with response to speech (Col.5, lines 5-19).

Therefore it would have been obvious to one with ordinary skill in the art at the time of invention, to incorporate the method of Yamaguchi in the apparatus of Allen et

al., in view of Harada et al., because this would provide effective maintenance of the peak signal output level against a decline for a specified holding time.

7. Claims 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen et al., (5,526,419) in view of Williamson III (5,369,711).

As per claim 28, Allen et al., teach a speech communication apparatus including a speech communication microphone, a speaker and a communication unit for amplifying an output signal from said speech communication microphone, said speech communication microphone and said speaker being fixedly disposed in the vicinity of a mouth and an ear of an individual (Fig.1, item 13m, Fig.4, Fig.4, item 46, Fig.7, item 59, Fig.9, item 25', Col.2, lines 48-50), respectively, said communication unit comprising:

amplifying means for amplifying an input signal and outputting said input signal so amplified(Fig.7, item 59); and,

control means for controlling the gain of said amplifying means in response to an excessive input signal (Fig.8, items 44-49).

However, Allen et al., do not specifically teach wherein said control means controls said amplifying means such that said amplifying means becomes mute for a predetermined time when said input signal exceeds a predetermined level. Williamson III, does teach wherein said control means controls said amplifying means such that said amplifying means becomes mute for a predetermined time when said input signal exceeds a predetermined level (Col.15, lines 45-68). Therefore it would have been obvious to one with ordinary skill in the art at the time of invention to incorporate the

automatic gain control circuit as taught by Williamson III in the apparatus of Allen et al., because this would provide an apparatus with an automatic gain control for headsets which provides a clear comfortably audible signal over a rapidly changing range of input signal levels while effectively eliminating any excessively loud signals.

As per claim 29, Allen et al., in view of Williamson III teaches the speech communications apparatus according to claims 28, wherein said speech communication microphone and said speaker are fitted in a helmet (Allen et al., Col.2, lines 41-58).

As per claim 30, Allen et al., teach a speech communication apparatus including a speech communication microphone, a speaker and a communication unit for amplifying an output signal from said speech communication microphone, said speech communication microphone and said speaker being fixedly disposed in the vicinity of a mouth and an ear of an individual (Fig.1, item 13m, Fig.4, Fig.4, item 46, Fig.7, item 59, Fig.9, item 25', Col.2, lines 48-50), respectively, said communication unit comprising:

amplifying means for amplifying an input signal and outputting said input signal so amplified(Fig.7, item 59); and,

control means for controlling the gain of said amplifying means in response to an excessive input signal (Fig.8, items 44-49).

However, Allen et al., do not specifically teach wherein said control means controls said amplifying means such that said amplifying means becomes mute for a predetermined time when said input signal exceeds a predetermined level. Williamson III, does teach wherein said control means controls said amplifying means such that said amplifying means becomes mute for a predetermined time when said input signal

exceeds a predetermined level (Col.15, lines 45-68). Therefore it would have been obvious to one with ordinary skill in the art at the time of invention to incorporate the automatic gain control circuit as taught by Williamson III in the apparatus of Allen et al., because this would provide an apparatus with an automatic gain control for headsets which provides a clear comfortably audible signal over a rapidly changing range of input signal levels while effectively eliminating any excessively loud signals.

As per claim 31, Allen et al., in view of Williamson III teaches the speech communications apparatus according to claims 30, wherein said speech communication microphone and said speaker are fitted in a helmet (Allen et al., Col.2, lines 41-58).

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Herscher et al., (3,821,472) teach a cough monitoring device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vijay B. Chawan whose telephone number is (571) 272-7601. The examiner can normally be reached on Monday Through Friday 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone

Art Unit: 2654

number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Vijay B. Chawan  
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